

NetBlaster™ ZX222 User's Guide

Fast Ethernet Adapter for PCI Mezzanine Connector (PMC)



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NetBlaster ZX222 User's Guide
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Welcome!

Thank you for choosing the ZNYX Networks NetBlaster embedded PCI Mezzanine Card (PMC) Fast Ethernet Adapter. Your adapter is designed to provide a lifetime of superior service in your system with PMC slots.

NetBlaster PMC Fast Ethernet Adapter Models

- NetBlaster PMC ZX222 provides two 100BaseFX ports with SC 62.5/125 micron multimode fiber connectors. It is a single-wide PMC module.

Documentation and Software

Documentation and software for the NetBlaster PMC adapter is distributed electronically. You can retrieve documentation and drivers from the ZNYX Networks web site in the driver download section. Please contact ZNYX Networks Customer Support if you have trouble locating the appropriate driver or installation documentation.

Installation Procedure

There are two basic steps you need to follow before you can operate your NetBlaster adapter.

1. Install the NetBlaster adapter (hardware)
2. Install the driver.

The steps outlined here help you install and troubleshoot the hardware. Driver installation instructions are available along with the driver itself from the ZNYX Networks web site. To get the most recent operating system specific driver, go to the ZNYX Networks website or contact Technical Support at:

Telephone:	(510) 249-0800 or (800) 724-0911
Fax:	(510) 656-2460
Email:	support@znyx.com
Website:	www.znyx.com/drivers

Hardware Installation

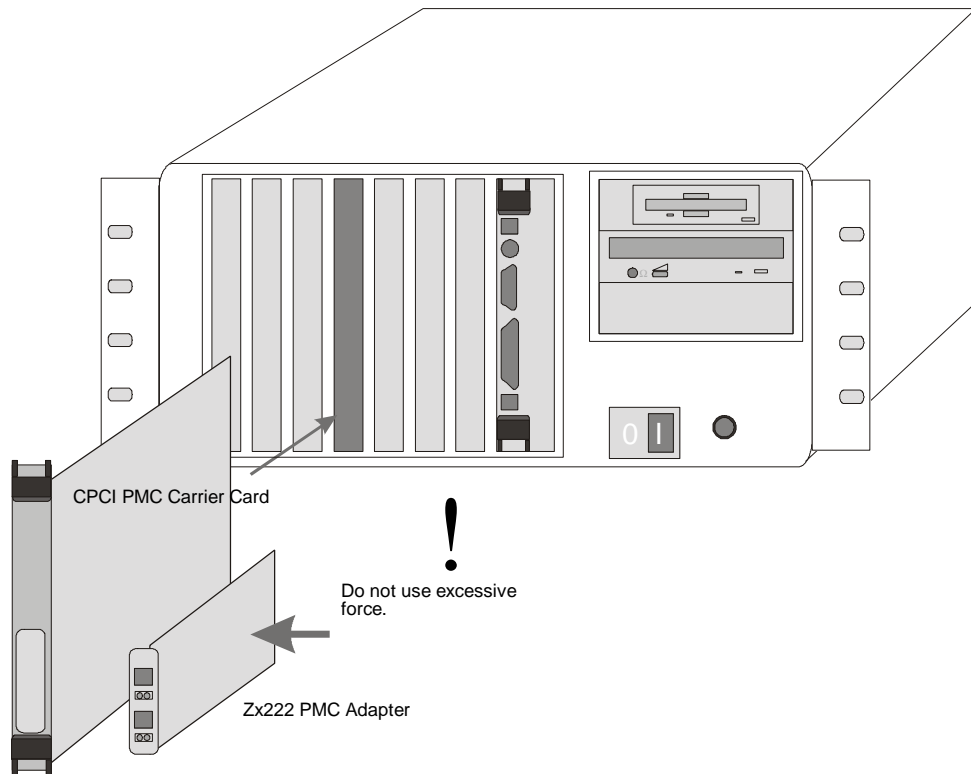
Below are the steps necessary to install a NetBlaster adapter into a standard, PMC compliant system. The following are detailed instructions for the hardware installation procedure.

Installing the Hardware

This installation procedure is for installing NetBlaster PMC adapter systems with an embedded PMC slot. Some steps in this procedure may vary depending on the specific system used. Refer to the system's documentation if necessary.

The figure on the following page shows the installation of an adapter in a typical system.

! Observe proper Electro-Static Discharge prevention procedures at all times. Failure to do so may result in damage to the PCI Adapter or to the system.



1. **Turn off** your system.
2. **Discharge any static electricity** from your body by touching the metal chassis, or by using an anti-static wrist strap. If you do not have a ground strap, maintain physical contact with the case to maintain the same electrical potential with the system.
3. **Remove the motherboard or carrier card** containing at least one available single-wide PMC slot. Select a slot to install the ZNYX Networks NetBlaster adapter. Remove the cover from the PMC slot.

4. **Insert the ZNYX Networks adapter** into the PMC slot. Insert the bezel of the ZNYX Networks adapter into the PMC cutout on the front panel of the motherboard or carrier card. Do not allow the gasket in the groove of the bracket to become misshapen or damaged. Do not operate without the gasket properly seated.

Guide the adapter down over the alignment pin. Fully seat the adapter into the mating connectors on the motherboard or carrier card.

5. **Secure** the four retention screws through the ZNYX Networks adapter standoffs and tighten.
6. **Replace** the motherboard or carrier card into the system.

LAN Cable Connection

The LAN cable must be properly attached to a functioning network for the adapter to operate. Each 100BaseFX port of the ZX222 requires a standard SC multimode fiber cable. SC connector cables support up to 412 m on 62.5/125 micron multimode fiber.

Connecting to the Network

You can connect your adapter directly to a hub or switch with any standard SC multimode fiber cable.

Driver Installation

This section covers driver installation for the NetBlaster adapter. At this stage the adapter should be secure in the system and all Ethernet cables should be attached. If this is not the case, return to the “Hardware Installation” procedure in the previous section.

Download the specific driver for your system from the ZNYX Networks web site (www.znyx.com). Included on the web site with the driver is a release note with installation and configuration instructions. Follow the directions on line to configure the driver.

Troubleshooting

All NetBlaster adapters support plug-and-play. If you have a plug-and-play system, your card will configure itself automatically.

If the operating system does not discover the board, try running the DOS-based diagnostics program.

Running DOS Diagnostics

DOS-based diagnostics are also available from the ZNYX Networks web site (www.znyx.com) to help troubleshoot hardware problems. If you believe you have a hardware problem, and have the capability to run DOS-based diagnostics, the steps below outline the use of the diagnostics. PMC-to-PCI adapters are available from Catalyst Enterprises (<http://www.catalyst-ent.com>).

Testing ZX222 Adapters in DOS

1. Run the diagnostic program that came with your adapter to see if your adapter has been properly configured. Run DIAG222.EXE off your diskette by entering:

```
>DIAG222 LIST
```

2. You will see a list below.

```
DIAG222 Version x.xx for ZNYX NetBlaster ZX222 2/100 Mbps adapter
(c) Copyright 2000 ZNYX Corporation - All Rights Reserved.
PCI BIOS Information: Version=2.10, Config Mechanism=1, Last Bus=2

Bus Dev Fn  Vendor Device Rev  Type           Lat IL IRQ  Note
=====  =====  =====  =====  =====
0   0   0   8086   1250   03   Host Bridge   20  -  -
0   7   0   8086   7000   01   PCI-ISA       00  -  -
0   7   1   8086   7010   00   IDE           20  -  -
1   5   0   1011   0019   30   Ethernet      40  A  3   ZX222
1   6   0   1011   0019   30   Ethernet      40  A  10  ZX222
```

3. You should see two Ethernet-type devices, and the “Note” column should indicate the devices to be ZX222’s. Each should have an **IRQ** (interrupt line), **bus** value, and a unique **device** number. If so, your card has been automatically configured. Make a note of the *bus* and *device* numbers and go on to the software installation section.
4. To test all channels of your adapter, run DIAG222 for each bus number and device number. For example, if you have a ZX222 and the bus number is 1 and the device numbers are 4 and 5, run:

```
>DIAG222 1 4
>DIAG222 1 5
```

5. If the DIAG222 program says:

```
Diagnostics successfully completed.
```

each time, proceed with the software installation.

System-Specific Configuration Requirements

The host computer program should automatically assign all system resources, such as I/O addresses and interrupt lines (IRQ).

Basic Troubleshooting

For all operating systems, we recommend that you try the following if you are having difficulty.

1. Make sure the board is securely seated in the slot.
2. Observe the LED’s. Each port on the ZX222 has a LINK (green) LED and an ACTIVITY (amber) LED. The green LED illuminates upon successfully establishing a link. The amber

LED illuminates during activity. Note: In most cases, the driver must be properly loaded and configured to bring up the link. The link LED is off if there is no link established.



3. Refer to operating system specific documentation to evaluate any error messages or logs when the driver is loaded.

Technical Support

If you need further assistance after referring to this User's Guide, ZNYX Networks has a professional technical support team available to answer your questions. Contact us at:

Telephone: (510) 249-0800 or (800) 724-0911
Fax: (510) 656-2460
Email: support@znyx.com
Website: www.znyx.com

You can reach us during normal business hours, Pacific Standard Time.

Appendix A: Legal Notices and Certification

CLASS 1 LASER Product:

Complies with 21 CFR 1040.10 and 1040.11.

FCC Class A Notice: NETBLASTER ZX222

Modification to this product not authorized by ZNYX Corporation could void the FCC approval and negate your authority to operate the product.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if it is not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Canada Compliance:

This Class A digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CE Conformity:

The ZX222 is in compliance to CE testing according to the following standards with respect to the stated level and given criteria:

EN55022	
EN50082-1	
EN55022(1998)	Class A
EN61000-4-2 (1995)	4kV (Contact Discharge) and 8kV (Air Discharge)
EN61000-4-3 (1995)	3V/m
ENV 0204 (1995)	
EN61000-4-4 (1995)	1kV (power Supply) and 0.5 kV (I/O Cables)
EN61000-4-5 (1995)	1kV (Line to Line) and 2kV (Line to Ground)
EN61000-4-6 (1996)	3Vrms
EN61000-4-11 (1994)	0%, 40%, 70% of U _T , voltage dips +/-10% voltage variations

THIS ADAPTER CARD IS FOR USE ONLY WITH PMC BUS COMPATIBLE SYSTEMS THAT HAVE ENCLOSED POWER SUPPLIES WITH SELV OUTPUTS AND INSTALLATION INSTRUCTIONS DETAILING USER INSTALLATION OF CARD CAGE ACCESSORIES.

Manufacturer Name: ZNYX Corporation
Manufacturer Address: 48501 Warm Springs Boulevard, Suite 107
Fremont, CA 94539

Warranty

ZNYX Networks warrants to the original purchaser of any ZNYX Networks NetBlaster PMC Fast Ethernet adapter product that is to be free from defects in workmanship and materials, under normal use and service, for the lifetime of the personal computer in which it is installed from the date of purchase from ZNYX Networks or its authorized dealer. In order for this warranty to be valid, this hardware product must remain in its original system and be registered with ZNYX Networks within one year of purchase. Otherwise, ZNYX Networks warrants to the original purchaser of this hardware product that it is to be in good working order for a period of twelve (12) months from the date of purchase from ZNYX Networks or an authorized dealer.

Should this product, in ZNYX Network's opinion, malfunction during the applicable warranty period, ZNYX Networks will, at its expense, repair the defective product or part or, at its option, deliver to the Customer an equivalent product or part to replace the defective item. To prevent damage in transport, the Customer must return the product in its original packaging or, if this is not available, other protective packaging approved in advance by ZNYX Networks. All returned products will become the property of ZNYX Networks. At ZNYX Network's option, replacement parts may be new or reconditioned. Any replaced product or part has a ninety (90) day warranty or the remainder of the initial warranty period, whichever is longer.